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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/632,172

07/30/2003

Reiner Marchthaler

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1408

26646

7590

12/15/2004

KENYON & KENYON
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NEW YORK, NY 10004

EXAMINER

LAI, ANNE VIET NGA

ART UNIT

PAPER NUMBER

2636

DATE MAILED: 12/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/632,172

Applicant(s)

MARCHTHALER ET AL.

Examiner

Anne V. Lai

Art Unit

2636

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☒ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 2, 4-7 are rejected under 35 U.S.C. 102(e) as being anticipated by **Breed**[US. 6,805,404].

Regarding claim 1, **Breed** (figs. 3 and 6) discloses a system for classifying occupant of a vehicle comprising at least one sound-wave (ultrasonic) transmitter 320 situated in a seat of the vehicle, and at least one sound-wave receiver (321, 322) situated in a seat of the vehicle (col. 11, lines 5-32).

Regarding claim 2, **Breed** discloses the transmitter 320 can receive signals and the receiver (321, 322) can transmit signals, both are functioned as transmitters and receivers, therefore reversible function is inherent (col. 12, lines 48-52).

Regarding claim 4, **Breed** discloses the system is configured for determining propagation-time analysis (col. 13, lines 1-18).

Regarding claim 5, **Breed** discloses the system is configured for determining a shift in frequency (col. 11, line 48 through col. 12, line 34) (the waves (frequencies) reflected from the occupant's head are received by the transducers and electronically

analyzed to determine any modification (shift) of the waves by the head of the occupant).

Regarding claim 6, **Breed** (fig. 6) discloses the sound-wave transmitter 322 (reversible function) and the sound-wave receiver 321 are situated horizontally in the seat.

Regarding claim 7, **Breed** (fig. 3) discloses the sound-wave transmitter 320 and the sound-wave receiver 321 are situated vertically in the seat.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Breed et al** in view of **Steffens et al** [US. 5,439,249].

Regarding claim 3, **Breed** does not disclose the sound-wave transmitter and the receiver are piezoelectric. **Steffens et al** teach a system for classifying occupants of a vehicle wherein the sound-wave transmitter and the sound-wave receiver are piezoelectric (col. 3, lines 28-39). It would have been obvious to one having ordinary skill in the art at the time of the invention was made the use of a sound-wave transmitter or receiver having piezoelectric feature is merely a designer choice based on cost, supply or user preference.

3. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Breed**.

Regarding claim 8, **Breed** discloses the three transducers (transmitters/receivers) 320, 321, 322 are cited to give an example for the occupant classification process, much more transducers can be used for different applications. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made when plural transmitters/receivers are distributed on plural places on the surface of the seat headrest, there must be at least one transmitter situated in a pressure-free place that the emitted ultrasound is received by the receiver without being reflected off the back of the occupant head.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Breed discloses a method for identifying and classifying objects in a vehicle. [US. 6,350,501]

Breed et al disclose a vehicle occupant position and velocity sensor wherein the frequency shifting of the measured to determine the velocity of the occupant relative to the air bag. [US. 5,653,462]

Filippov et al disclose occupant presence detection. [US. 2003/0122669]

Herberg et al discloses a four-point seat belt having electronic motor driven retractor. [US. 2004/0036345] (filed Aug 10, 2002, not considered as prior art).

Fu discloses a vehicle seat assembly including occupant-sensing system. [US. 5,848,661]

Kursawe et al disclose an arrangement for recognizing the type of occupant of a vehicle. [US. 6,005,485]

Thompson et al disclose a wet seat protection for air bag control occupant detection comprising ultrasound and piezoelectric sensor. [US. 2003/0090376]

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anne V. Lai whose telephone number is 571-272-2974. The examiner can normally be reached on 8:00 am to 5:30 pm, Monday to Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hofsass Jeffery can be reached on 571-272-2981. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A. V. Lai
December 01, 2004


JEFFERY HOFSSASS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600